

Notice of Allowability

Application No.

09/289,600

Examiner

Jean E Lesperance

Applicant(s)

YAMAGUCHI ET AL.

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed February 17, 2006.
2. ☒ The allowed claim(s) is/are 1-29, 31, and 35-38 renumbered as 1-34.
3. ☒ The drawings filed on 12 April 1999 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

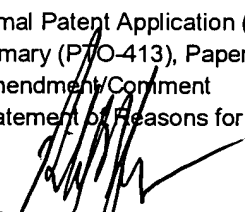
7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the top margin (not the back) of each sheet. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892) | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 4 <input checked="" type="checkbox"/> Interview Summary (PTO-413), Paper No. _____ |
| 5 <input type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. _____ | 6 <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |


RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

DETAILED ACTION

1. The amendment filed February 17, 2006 is entered and claims 1-29, 31, and 35-38 are pending.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Susan Perng Pan (Reg. No. 41,239) on April 20, 2006.

Please amend independent claims 1, 13, and 38 as follows:

1. (Currently amended): A monochromatic image display system comprising:
a display device comprising a plurality of picture elements, each picture element comprising a series of spatially adjacent cells, arranged in a linear manner, each cell emitting light in a same color and expressing tones in three or more levels; and
a cell signal generating means which generates, based on a monochromatic image signal indicating an output luminance of each picture element of a monochromatic image, a cell signal for each spatially adjacent cell of a respective picture element of said display device, said cell signal determining an output tone level of the cell, so that an average of the output luminance of all the cells within each

Art Unit: 2629

respective picture element correspond to an output luminance of the respective picture element,

wherein each respective picture element of said display device corresponds to a picture element of said monochromatic image, and

wherein the output luminance of the plurality of picture elements of said display device express said monochromatic image.

13. (Currently amended) A monochromatic image display system comprising:

a display device comprising a plurality of picture elements, each picture element comprising a series of spatially adjacent cells, arranged in a linear manner, each cell emitting light in a same color and expressing tones in three or more levels, and at least two of said series of cells having maximum output levels different from each other; and

a drive means which drives the cells of a respective picture element so that the output level difference per one level of said three or more levels differs from each other between said at least two of said series of cells, wherein the plurality of picture elements express a monochromatic image.

38. (Currently amended) A monochromatic image display system comprising:

a display device comprising a plurality of picture elements, each picture element comprising a series of spatially adjacent cells, arranged in a linear manner, each cell emitting light in a same color and expressing tones in three or more levels; and

a cell signal generating means which generates, based on a monochromatic image signal indicating an output luminance of each picture element of a monochromatic image, a cell signal for each spatially adjacent cell of a respective

picture element of said display device, said cell signal determining an output tone level of the cell, so that an sum of the output luminance of all the cells within each respective picture element correspond to an output luminance of the respective picture element,

wherein each respective picture element of said display device corresponds to a picture element of said monochromatic image, and

wherein the output luminance of the plurality of picture elements of said display device express said monochromatic image.

Allowable Subject Matter

3. Claims 1-29, 31, and 35-38 are allowed.
4. The following is an examiner's statement of reasons for allowance: the claimed invention is directed to a monochromatic image display system.

Independent claims 1 and 38 identify a uniquely distinct feature "a display device comprising a plurality of picture elements, each picture element comprising a series of spatially adjacent cells, arranged in a linear manner, each cell emitting light in a same color and expressing tones in three or more levels".

Independent claim 13 identifies a uniquely distinct feature "a display device comprising a plurality of picture elements, each picture element comprising a series of spatially adjacent cells, arranged in a linear manner, each cell emitting light in a same color and expressing tones in three or more levels, and at least two of said series of cells having maximum output levels different from each other".

The closest arts, Farwell et al. and Hasegawa as discussed in previous in the Office Action, either singularly or in combination fail to anticipate or render the above underlined limitations obvious.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Lesperance whose telephone number is (571) 272-7692. The examiner can normally be reached on from Monday to Friday between 10:00AM and 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (571) 272-7691 .

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(571) 273-8300 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology Center 2600 Customer Service Office

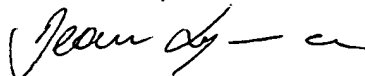
Application/Control Number: 09/289,600

Page 6

Art Unit: 2629

whose telephone number is (703) 306-0377.

Jean Lesperance



Art Unit 2629

Date 4/20/2006



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SUPERVISORY PATENT EXAMINER
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